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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/740,039	12/20/2000	Gunther Michael	32301W090	6197

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EXAMINER

METZMAIER, DANIEL S

ART UNIT

PAPER NUMBER

1712

DATE MAILED: 02/14/2002

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/740,039	MICHAEL ET AL.
	Examiner	Art Unit
	Daniel S. Metzmaier	1712

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 16 April 2001 and 30 May 2001.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-10 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-10 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.

 If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.

2. Certified copies of the priority documents have been received in Application No. _____.

3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.

4) Interview Summary (PTO-413) Paper No(s) _____.

5) Notice of Informal Patent Application (PTO-152)

6) Other: _____

DETAILED ACTION

Claims 1-10 are pending in the instant application. The Priority Papers filed April 16, 2001 have been entered as Paper No. 4. The Information Disclosure Statement filed May 30, 2001 has been entered as Paper No. 6. The (7) Response to the incomplete reply to the notice of missing parts and the (8) two month extension of time filed June 22, 2001 have been entered as Paper No. 7 and 8, respectively.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.
2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Specification

3. The disclosure is objected to because of the following informalities: the European patent number¹ at page 1, line 8, of the instant specification should be checked and/or corrected since it corresponds to a motor drive for a sliding door mechanism rather than compacted hydrophilic silica as characterized.

The substructures set forth at page 2 of the instant specification should more clearly set forth the Aerosil they correspond and indicate appropriate bonds as open bonds and/or between elemental atoms.

Table 1 is referred to on page 3 but no table is labeled "Table 1". Applicants should label the tables corresponding to any references in the description of the data set forth therein, e.g., Table 1 and/or Table 1 (continued).

¹ Do applicants intend EP 0 280 851 B1 referred to at page 2, line 2 of the instant specification?

Applicants should indicate what the column "PA" refers in tables on pages 4 and 5. The abbreviation "(UT)" or the parenthetical numbers in the table on page 6, on page 8 or the table on page 9 have not been defined.

Appropriate correction is required.

Claim Objections

4. Claim 4 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 4 depends on itself, claim 4, and therefore does not further limit the subject matter of a previous claim.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter that the applicant regards as his invention.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 provides for the use of "hydrophobic, pyrogenically produced silica", but, since the claim does not set forth any steps involved in the method/process, it is unclear

what method/process applicant is intending to encompass. A claim is indefinite where it merely recites a use without any active, positive steps delimiting how this use is actually practiced.

Claim 9 is rejected under 35 U.S.C. 101 because the claimed recitation of a use, without setting forth any steps involved in the process, results in an improper definition of a process, i.e., results in a claim which is not a proper process claim under 35 U.S.C. 101. See for example *Ex parte Dunki*, 153 USPQ 678 (Bd.App. 1967) and *Clinical Products, Ltd. v. Brenner*, 255 F. Supp. 131, 149 USPQ 475 (D.D.C. 1966).

8. Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is the scope of claim 4 since the claim depends on itself, claim 4. It is unclear which of the preceding claims applicants may have intended to be referenced and therefore what was applicants intended scope.

Claim interpretation

9. Claims 1-4 and 8 are directed to a hydrophobic, pyrogenically produced silica. Claim 10 is directed to a dispersion of hydrophobic, pyrogenically produced silica. Claims 8 and 10 are directed to compositions drafted in product-by-process format. For products drafted in product-by-process format, the determination of patentability is based on the product itself. Please see MPEP 2113.

It is further noted; applicants do not define the remaining components of the dispersion as set forth in claim 10.

Claims 5-7 are directed to processes for the production of hydrophobic, pyrogenically produced silica. Claim 9 is a use claim. See above rejections under 35 USC 112 and 101.

Claim Rejections - 35 USC § 102

10. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action.

Paragraphs (e) are included as they pertain to Hartmann et al relied on below:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

11. Claims 1-2 and 5-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Klingle et al., US 4,877,595². Klingle et al (column 4, example and column 3, lines 50-56) discloses methods of compressing pyrogenic silica and is a roller compactor and/or a belt filter press as claimed. Klingle et al (column 1) further teaches roller compactors as mechanical compressing methods. Klingle et al (column 4, lines 1-26) discloses the compressing of Aerosil R 972 to a value of 90-120 g/l. Aerosil R 972 is understood to

² Klingle et al., US 4,877,595, is a patent family member of EP 0 280 851 B1 instantly disclosed and employed by applicants as a compressing method.

be a pyrogenically produced silica that has been hydrophobed by treatment with dichlorodimethylsilane.

Klingle et al (column 3, lines 50-56) discloses the formation of silica dispersed in silicone rubber compositions. Said disclosure reads on instant claims 9 and 10.

12. Claims 1-4, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Deusser et al., US 5,429,873. Deusser et al (column 4, lines 8 et seq including the second table in column 4) disclose pyrogenic Aerosil 200 hydrophobically treated with a chlorine free silane that would be expected to have no chloride content and having a stamping density³ of 58 to 61 grams/liter. Deusser et al (column 5) discloses the dispersion of silica in a raw toner resin. The compositions resin compositions read on the broad dispersion of silica.

Claims 8 and 10 are dependent on claim 5 as compositions defined by product-by-process limitations. There is no evidence of record to show the process imparts patentable distinction to the products that otherwise read on the claimed compositions.

13. Claims 1-4, 8 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by Burger, US 4,680,173. Burger (column 10, line 33 to column 11, line 2, and claims) silicas and aerosol dispersions of said silicas. The density of the silicas of 3.0 to 10 lbs/ft³ equates to about 48 to 160 grams/liter, which substantially overlaps applicants claimed range of tamped density.

14. Claims 1-5 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Degussa AG, EP 0 808 880 A2 (hereafter Degussa), as evidenced by Hartmann et al,

US 5,959,005⁴. Hartmann et al is a patent family member of Degussa and is used as translation evidence of the Degussa disclosure. The citations refer to those set forth in Hartmann et al but the disclosure are considered to be the same or substantially the same.

Hartmann et al and Degussa (example) disclose the treatment of Aerosil 200, a pyrogenically produced silica produced by Degussa AG, was hydrophobically surface treated with hexamethyldisilazane followed by being compressed mechanically. Said hydrophobic silica is disclosed as having a tamped density of between 50 and 300 which 188 grams/liter exemplified.

Hartmann et al and Degussa (column 1, lines 47 et seq) disclose the use of the silica in low viscosity liquid systems that would require the formation of a dispersion as claimed.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

³ Stamping density is deemed to be synonymous to tamping density. Both are based on the standardized test DIN ISO 787/11, JIS K 5101/18.

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

17. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Degussa AG, EP 0 808 880 A2 (hereafter Degussa), as evidenced by Hartmann et al, US 5,959,005, optionally further in view of Klingle et al., US 4,877,595⁵.

Hartmann et al and Degussa (example and claims) disclose pyrogenically produced silica hydrophobically surface treated with hexamethyldisilazane followed by being compressed mechanically.

Hartmann et al and Degussa differ from the claims in the particular type of compaction method employed in compacting the silica. Hartmann et al and Degussa (example) disclose compressing the silica on a continuously operating vertical ball mill rather than the claimed roller compactor or belt filter press.

The roller compactor or belt filter press are conventionally known methods of compressing and/or compacting particulate materials and have not been shown nor disclosed to be unobvious over the use of the exemplified continuously operating vertical ball mill. It would have been obvious to one having ordinary skill in the art at the time of applicants' invention to employ conventional compress steps in making the

⁴ Degussa has a publication date of 26 November 1997 and qualifies as prior art under 35 USC 102(b) whereas Hartmann et al qualifies as prior art under 35 USC 102(e).

⁵ Klingle et al., US 4,877,595, is a patent family member of EP 0 280 851 B1 instantly disclosed and employed by applicants as a compressing method.

compressed silicas in accordance with the methods disclosed in the Hartmann et al and Degussa references for their use as functional equivalent method steps of compressing the Hartmann et al and Degussa silica materials.

Klingle et al discloses methods of compressing pyrogenic silica and is a roller compactor and/or a belt filter press as claimed. Klingle et al (column 1) further teaches roller compactors as mechanical compressing methods. Klingle et al (column 4, lines 1-26) discloses the compressing of Aerosil R 972 to a value of 90-120 g/l. Aerosil R 972 is a hydrophobicized pyrogenic silica.

These references are combinable because they teach mechanical compressing methods of treating pyrogenic silica and processes and compositions produced therein. It would have been obvious to one having ordinary skill in the art at the time of applicants' invention to employ either a roller compactor or belt filter press method of mechanically compressing the pyrogenic silica taught in the Hartmann et al and Degussa references.

Conclusion

18. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
19. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (703) 308-0451. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Dawson can be reached on (703) 308-2340. The fax phone

numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


Daniel S. Metzmaier
Primary Examiner
Art Unit 1712

DSM
February 6, 2002